

## Patent Abstracts of Japan

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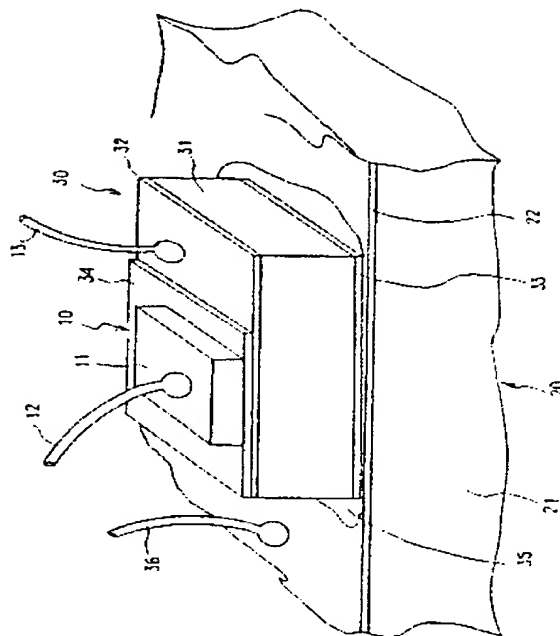
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TITLE : SEMICONDUCTOR LASER DEVICE



ABSTRACT : PURPOSE: To enable the very accurate measurement of the temperature of an active layer of a semiconductor laser chip by a method wherein a thermistor is mounted on a chip carrier and the semiconductor laser chip is mounted directly thereon.

CONSTITUTION: A thermistor 30 is mounted on a chip carrier 20, and a semiconductor laser chip 10 is mounted on one of electrodes of the thermistor 30. The thermistor 30 is mounted on the chip carrier 20 in such a manner that a lower electrode 33 of the thermistor 30 is fusion-welded on a metal 22 on the chip carrier 20 through the intermediary of a eutectic solder layer 35 of lead and tin. And, the semiconductor laser chip 10 is mounted on an upper electrode 32 of the thermistor 30 in such a way that a lower electrode of the semiconductor laser chip 10 is fusion-welded to the upper electrode 22 of the thermistor 30 through the intermediary of the pattern of a eutectic solder layer 34 of gold and tin formed on a part of the upper electrode 32 of the thermistor 30.

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